

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 12 JAN 2006

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
ROBERT W. ESMOND
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WASHINGTON, DC 20005

Date of mailing
(day/month/year) **10 JAN 2006**

Applicant's or agent's file reference

0942.549PC02

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US04/01786

International filing date (day/month/year)

23 January 2004 (23.01.2004)

Priority date (day/month/year)

23 January 2003 (23.01.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): C12Q 1/68; C12N 15/00, 15/09, 15/86;; C07H 21/04 and US Cl.: 435/6, 29,69.1, 252.3, 252.33, 320.1, 471, 476, 488;; 536/23.1

Applicant

BLOOM ET AL.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

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**WRITTEN OPINION OF THE
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Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-107</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-107</u>	NO
Industrial applicability (IA)	Claims <u>1-107</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-107 lack novelty under PCT Article 33(2) as being anticipated by Bloom et al., US Patent 5,891,692.

Bloom et al., teach a method for increasing the viability and transformation ability of bacteria during or after storage at low temperatures. In particular E. coli strains are among the cells that can be used with the invention (col. 6). Bloom et al., teach the recited strains and their associated growth rates. Furthermore Bloom et al., teach the lack of detectable levels of endogenous plasmids (col.7). Bloom et al., teach the genotype markers (col.6). The invention provides for the a method of cloning comprising the recited steps, at the instantly recited temperatures and other associated production conditions. See examples 2-4. Bloom et al., also teach the production of proteins and methods of transformation, see example 11. Example 12 teach cloning methods along with example 10. The art and example also teach components for kits for cloning and their associated reagents. Therefore Bloom et al., teach method for increasing the viability and transformation ability of bacteria just as required.